16. Moreover, the logic of separately identifying and costing these two inputs or services is further confounded by the imminent transition from circuit-switched to packet-switched technology and substitution of Voice Over IP (VoIP) for what is now basic service.

17. The simple fact of the matter is that if an incumbent local telephone company is to be required to bear the entire cost of providing a loop, capable of providing a wide variety of services—with the necessity of recovering the common costs from those several services rather than in a lump sum charge for dial tone alone—and is then required to offer the access that the loop provides to competitors for the provision of only some of these services, at—let us assume—zero incremental cost, it may well find itself, under pressure of competition, incapable of recovering any of the common costs from the latter services. CLECs offer the opposing contention that the ILEC does not necessarily impute to itself or to its own xDSL operations and offerings any part of the cost of the loop, presumably because its marginal cost for this new usage is something close to zero; and a similar availability of the loop to them at similarly low-to-zero marginal cost would therefore do no more than put them on an even competitive footing. The response is that in competitive markets sellers do not price on the basis of "imputed" common costs, when those costs must be recovered either in the form of fixed customer charges or on the basis of what the respective services produced with the aid of the inputs will bear. Competitive parity would therefore require that both sets of rivals bear the same loop costs, each recovering them in either of those two ways—not that one set of rivals be

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"The TSLRIC Quagmire," and my allusion, below, to the FCC's recognition of the proper way to recover loop costs. In this discussion I ignore the possibility, which I am not competent to evaluate, that there would be substantial incremental costs involved in the kind of unbundling being requested here. For my purposes, which is to assess the implications of this demand for efficient competition between ILECs and CLECs, these additional asserted costs are unnecessary: even if the unbundling demanded entailed zero incremental costs, it would decidedly *not* be conducive to efficient competition for that "UNE" to be priced at that level.

totally exempted from them, as the proponents of what is deceptively labeled "line sharing" would have it.

18. As the foregoing characterization of the impossible situation in which the ILECs would find themselves if this demand were granted suggests, essential components of that dilemma are that

- the ILECs have a continuing obligation to supply the basic dial tone services, *and*
- the rates they are permitted to charge for those services are themselves subject to regulatorily imposed ceilings, *and*
- they have been enabled to continue to perform that function, at those regulated rates, in considerable measure because of their ability to extract higher markups on other services provided through the same loops.

In these circumstances, manifestly, the competition between those two entities would be fatally distorted if spectrum sharing were in fact mandated at the FCC's TELRIC prices.

19. Such a mandatory spectrum sharing would have the additional, distressing consequence that it would eliminate any incentive on the part of competitive carriers to provide voice services as part of a total package, because to do that they would obviously have to employ—*and pay for*—the entire loop—a cost they could conceivably escape entirely by demanding access only to the high-frequency spectrum.

20. As the FCC has itself recognized, the costs of the loop are not usage sensitive. Efficiency requires that they be recovered, then, in lump-sum charges—not in the prices of the services whose provision they make possible. But where the ILEC is prevented by regulation

from recovering all of those costs in this way and must instead recover some of them from services using the loop, and where a competitor can offer some of those high-margin services, without having to pay any part of the fixed cost of that loop, the result must inevitably be a distortion of competition between the two.

21. Manifestly, fair and efficient competition requires that CLECs and ILECs both be required to bear the full incremental costs of the these multi-purpose facilities, the loops—whether by investing in them themselves or acquiring them, unbundled, from the incumbents—competing, then, on an equal footing in providing whatever portions they choose of the entire range of services whose supply the loops make possible.

22. Consider, finally—to advert to our central argument—the fatal effect on the incentive or willingness of competitive carriers to construct their own facilities if they were able, by courtesy of regulators, to acquire the capability of offering the most lucrative, rapidly expanding and most innovation-dependent of their several services from their incumbent owners, at prices equated to the very low (and conceivably zero) marginal costs of adding that capacity to their loops.

V. THE DEMAND FOR ENHANCED, EXPANDED LOOPS (EELS)

23. The demand of some carriers that the FCC require incumbent telephone companies to offer them bundled combinations of loops and dedicated transport facilities, presumably at prices complying with the Commission's TELRIC formula, provides an excellent example of the opposite kind of gaming of the system in which some CLECs are engaging—instead of, as in the previous case, demanding "network elements" narrower than the units for which costs

are incurred, demanding combinations (or "platforms") of units *broader* than would satisfy the economist's formulation of the Act's "necessary" and "impair" standards.

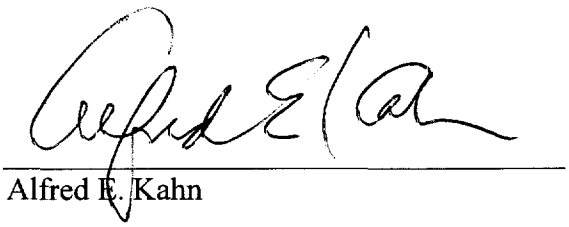
24. The law, the Supreme Court's interpretation of it and the principles of efficient competition that I have already enunciated all require that mandatory unbundling and provision at Commission-regulated rates be confined to network elements that meet those standards. While I have made no independent study of these markets, the mere fact that, even as of several years ago, every major metropolitan area in the country had its own competitive access provider of special access, along with the recent dramatic emergence and dramatic growth of CLECs in those areas that I have already summarily described (including reference to the facilities AT&T acquired with the purchase of Teleport and those of MFS that went into the MCI-WorldCom combination), clearly demonstrate the absurdity of any pretense that special access could satisfy that requirement. Moreover, as McDermott and Taylor persuasively demonstrate, large customers routinely take advantage of the availability of competition in those urban areas to solicit competitive proposals statewide.[29] In these circumstances, the demand that loops bundled with transmission be subject to mandatory "unbundling" and sharing would be laughable even if it were not in a proceeding dictated by an instruction of the Supreme Court to the FCC to give some substance to the statutory "necessary" and "impair" standards.

25. By an illuminating coincidence, the requests of various CLECs for spectrum unbundling, on the one side, and EELs on the other, illustrate the gaming to which the Act's provision mandating the offer of unbundled network elements is subject. The FCC should

[29] Petition of Bell Atlantic for Forbearance (CC Docket 99-24, January 20, 1999, Attachment C).

clearly be wary of both games—the proposed bundling of elements genuinely needed by competitors with elements that do not satisfy that standard, on the one side, and, on the other, the proposed unbundling of what are and clearly must be irreducible elements if the Act's goal of efficient competition is to be achieved.

I declare under penalty of perjury that the foregoing is true and correct. Executed on June 10, 1999.



Alfred E. Kahn

CRANDALL
Reply Declaration

Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
	)	

Reply Declaration of Robert W. Crandall

Qualifications

1. I am a Senior Fellow in Economic Studies at the Brookings Institution in Washington, DC, a position that I have held since 1978.[1] Prior to that I was Acting Director, Deputy Director, and Assistant Director of the Council on Wage and Price Stability in the Executive Office of the President, and in 1974-75 I was an adviser to Commissioner Glen Robinson of the Federal Communications Commission. I was an Assistant Professor and Associate Professor of Economics at MIT between 1966 and 1974. I have written widely on telecommunications policy, the economics of broadcasting, and the economics of cable television. I am author or co-author of four books on communications policy published by the Brookings Institution since 1989: Changing the Rules: Technological Change, International Competition, and Regulation in

[1]The views expressed herein are solely my own and should not be taken to represent the views of the Brookings Institution, its other staff members, or its Trustees.

Communications (with Kenneth Flamm), 1989; After the Breakup: U.S. Telecommunications in a more Competitive Era, 1991; Talk is Cheap: The Promise of Regulatory Reform in North American Telecommunications (with Leonard Waverman), 1996; and Cable TV: Regulation or Competition? (with Harold Furchtgott-Roth), 1996. A new book on universal-service policy, co-authored with Leonard Waverman, will be published by Brookings at the end of this year. A copy of my curriculum vitae is attached.

2. I have been asked by Bell Atlantic to provide an analysis of several comments received in this proceeding. In particular, I have been asked to evaluate the analyses contained in various economists' declarations and affidavits appended to the comments filed by AT&T and MCI WorldCom.

Summary of Conclusions

3. The economists' analyses submitted with the AT&T and MCI WorldCom comments in this proceeding offer no useful guidance for the Commission as it seeks to determine which incumbent local exchange carrier (ILEC) elements are the potential source of impairment of competition. The proposition advanced by these economists that ILECs have an initial unit-cost advantage over potential entrants is largely irrelevant to the issue of unbundling. Virtually every entrant in any industry has an initial unit-cost disadvantage over its incumbent rivals -- one often amortized as "start-up" costs. Nevertheless, entry proceeds without government mandates on the incumbents to lease their facilities. Successful entry requires that the entrant eventually achieve

equal or lower costs per customer or subscriber, not that it instantaneously do so.

4. The use of forward-looking, TELRIC models to measure prospective cost advantages or disadvantages of entrants is misleading. ILECs' current costs cannot be assessed on the basis of hypothetical estimates from forward-looking cost models because their costs derive from past investment decisions. Given that entrants are not encumbered by a legacy of these decisions based on earlier, less efficient technology and past market conditions, they are free to adopt the optimal technology for current market conditions and therefore enjoy an advantage over the ILECs.

5. There is no reason to require an ILEC to unbundle an element simply because one CLEC or even several CLECs seek such an element at TELRIC prices. The Commission's focus should be on whether the inability to gain access to such an element or elements impairs competition, not inconveniences one or more potential competitors.

6. At most, the Commission should focus solely on the viability of entry with and without access to an ILEC's elements in terms of the effect on the incremental costs of service, but only after considering the availability of substitutes and the potential for using different technologies. The absence of an ILEC element could not possibly impair entry -- though it might discourage one or more potential entrants simply wishing to mimic the ILEC's technology -- if there are a variety of other sources of the functionality available from terrestrial wireline, terrestrial wireless, cable television, or even satellite technologies. Indeed, entrants are more likely to be

able to incorporate many of these new technologies than are the ILECs because -- unlike the ILECs -- they do not have to incorporate them into a network that reflects years or even decades of earlier technologies.

7. The Commission should base its decision on the extent of mandated unbundling in part on the fact that mandated sharing of facilities through unbundling inevitably creates the potential for conflict between lessor and lessee and reduces the incentives for both to innovate. Therefore, unbundling should be mandated only for those elements without which competition would likely be impaired, not for all the elements that every risk-averse, non-innovative potential competitor might seek through the regulatory process.

Introduction

8. In comments filed in this proceeding, MCI and AT&T provide declarations from economists who argue that unbundling in general is likely to accelerate the process of competition by reducing the immediate cost per subscriber of CLECs that are in the process of entering a market.[2] Relying on general allusions to economies of scale and scope, these economists argue that entrants suffer cost disadvantages relative to ILECs in virtually every dimension of their activities because of their initial size handicap -- providing loops, building

[2] See Affidavit of R. Glenn Hubbard, William H. Lehr, and Robert D. Willig on Behalf of AT&T Corp., Exhibit C to AT&T's Comments in this proceeding (hereafter, Hubbard, et al.); Declaration of John E. Kwoka, Jr. on Behalf of MCI WorldCom, Inc., submitted with MCI WorldCom's Comments in this proceeding.

local transport facilities, switching calls, marketing, provisioning, and management. As a result, they argue for a thoroughgoing policy of unbundling without pausing to ask if the functionality of any of the ILEC's current facilities could now reasonably be found not to be a source of potential impairment of competition.

9. The economists submitting declarations or affidavits for AT&T and MCI WorldCom also claim that ILECs inevitably enjoy a cost advantage over CLECs, assuming apparently that every CLEC simply mimics the ILEC technology now in place and that the ILECs' costs can appropriately be measured by TELRIC. The result of their analysis is a gloomy picture for the prospects of entrants, facing the efficient behemoths -- the ILECs -- in the local telecommunications marketplace unless these entrants are able to obtain unlimited access to the ILECs' facilities at TELRIC rates. As I shall show, this result is misleading.

10. AT&T's and MCI's economists focus repeatedly on the need for an entrant to use UNEs of all kinds in order to avoid a cost "disadvantage" with ILECs, never pausing to ask why it is necessary to evaluate the effect of unbundling on all potential entrants -- large and small; efficient and inefficient. Not surprisingly, the comments by the Association for Local Telecommunications Services (ALTS) make the same point. ALTS asserts that the unbundling standards "must be applied in a manner that considers and makes possible UNE entry by large and small competitors alike..."[3] But if, as AT&T's and MCI WorldCom's economists allege,

[3] ALTS Comments at 34.

economies of scale and scope are important in this sector, why should the Commission be guided by the wishes or needs of every small competitor? It is viable competition, not the fate of myriad, small competitors, that matters.

Analysis of the Contentions for Universal Unbundling

11. This proceeding has been initiated by the Commission to determine the scope of unbundling that is required of the ILECs under the 1996 Act in light of the Supreme Court's recent ruling requiring "some limiting standard, rationally related to the goals of the Act" for such unbundling.[4] The affidavits and declarations filed by economists in the AT&T and MCI WorldCom comments are useless for this purpose, for they simply endorse unbundling as a generic concept, providing no limiting standard. Moreover, they endorse uniform national rules, extending unbundling requirements even to ILEC facilities that provide the same functionality as AT&T's and MCI WorldCom's facilities along the same rights of way in the same geographical locations. Their "limiting standard" is one that establishes no limits whatsoever.

12. Both Hubbard, et al. and Kwoka view unbundled elements as a means by which CLECs reduce their unit cost of providing service because CLECs avoid certain fixed costs by using unbundled elements. However, in any industry, an entrant must commit resources that are fixed with respect to variations in output and are often irretrievably sunk as well. For example, a

[4]AT&T v. Iowa Utilities Board, 119 S Ct. 721 at 734. (1999).

proprietor of even a new automobile repair garage must invest in wrenches, screwdrivers, oil cans, air compressors, electronic diagnostic devices, lifts, and an inventory of rudimentary repair parts to begin serving the public. Until this proprietor achieves a reasonable customer base, his (her) unit costs will be high compared to those of the "incumbents" -- the automobile dealers, gas stations, and independent service stations -- in the area. Surprisingly, despite the absence of a regulatory institution that mandates that incumbents lease their unbundled facilities -- grease racks, electronic diagnostic devices, and electronic data bases of motor vehicle operating systems -- entrants appear on a regular basis to offer repair services in local markets throughout the country. Absence of such an unbundling regime is thus apparently not the source of "impairment" of competition in this or most other industries.

13. Throughout their analyses, economists for AT&T and MCI WorldCom refer repeatedly to the economies of scale and scope in providing local access/exchange services as the reason for the prescription for unlimited, universal unbundling of ILEC facilities. With the exception of the Bryant affidavit, however, they provide no empirical evidence of these economies, nor do they explain why the mere existence of such economies requires the Commission to mandate universal unbundling. These scale and scope economies may be easily overcome in many geographical markets. How else would one explain the rapid expansion of some CLECs without resort to UNEs? Moreover, how would one explain the enormous investment by CLECs of all sizes in local fiber-optic cables, switches, and related facilities throughout the country even before the passage of the 1996 Act when unbundling was not required?

14. Nor is it clear that economies of scale and scope are very important in delivering local exchange/access services. There is little evidence that the efficiency of a local-exchange company increases with its size. Building several wire centers to serve adjacent areas in a large metropolitan area may not generate economies of scale; two or more adjacent, independent LECs might easily serve these adjacent areas as economically as one LEC could serve the entire area.[5] Nor are the joint economies of offering a multitude of communications service yet obvious although joint provision of some services -- such as local access and interLATA services -- might well be subject to some joint economies. Are these the economies to which MCI WorldCom's and AT&T's economists refer? If so, unfortunately, they are not being exploited today by the Regional Bell Operating Companies (RBOCs), who account for a sizable share of ILEC services.

15. But even if economies of scale, density, or scope are important in the local telecommunications sector, there is no necessary reason to require ILECs to unbundle everything in order to provide for unimpaired entry into local markets. In every industry, there are likely to be scale economies over some range of output. Entrants are routinely forced to absorb "start-up" costs over the time period required to reach minimum efficient scale, but such start-up costs are not necessarily an insuperable burden. For example, in his Declaration on behalf of MCI

[5] There are clearly economies of density in local telecommunications services, but economies of scale are likely to be limited once a carrier's service area is sufficient to fill a large end-office switch to capacity.

WorldCom, Mark Bryant, identifies some economies of scale in local switching.[6] But are these economies the source of impairment to local competition and are they a source of impairment everywhere? If so, it is strange indeed that CLECs had deployed 724 switches in 320 cities by March of this year.[7] Moreover, over 150 different CLECs have deployed switches, suggesting that the required investment in a switch is not a barrier to entry for even the smallest of CLECs. Surely, a "limiting standard" for requiring unbundling would have to be based on evidence of the actual deployment of such facilities by CLECs over the past three years. The filings by advocates of unlimited unbundling -- AT&T and MCI WorldCom, for example -- are curiously silent on this empirical record. Merely invoking the general notion of economies of scale as an alternative is not sufficient to generate a basis for determining a "limiting standard" for unbundling. Such economies of scale, if present, in the ILECs' networks must be weighed against the likelihood that CLECs may find a more efficient network configuration through the use of their own investments in new technologies.

16. Economists submitting affidavits or declarations for AT&T and MCI argue that ILECs enjoy a thoroughgoing cost advantage over CLECs on the basis of TELRIC -- the "total element long-run incremental cost" standard adopted by the Commission as the standard for

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[6] Bryant Declaration at 21.

[7] UNE Fact Report, Submitted by the United States Telephone Association in this Proceeding, May 26, 1999.

pricing network elements. Bryant analyzes these costs for hypothetical ILECs and CLECs using the Hatfield (HAI) model of local-network costs -- a TELRIC model that employs the most optimistic cost assumptions of the three major models developed in response to the 1996 Act. While the HAI model may provide a reasonable approximation for CLEC costs -- Bryant could inform us if the model provides an accurate prediction of MCI WorldCom's own experience as a CLEC -- it surely does not reflect the actual costs of any ILEC. ILECs incur costs on the basis of actual past decisions to deploy facilities, hire employees, and respond to regulatory mandates. They cannot walk away from this history; they must honor these past obligations. Even if their unit costs could be 30, 40, or 50 percent lower under various versions of the HAI model, this is of little comfort to them or any other incumbent. For example, once entry was opened up in the airline industry, incumbent carriers, such as Eastern, TWA, and Continental may have had lower hypothetical TELRIC costs than new entrants into the market because of their vast networks, but these lower hypothetical costs were irrelevant to their creditors who forced them into bankruptcy for failing to cover their actual costs. The TELRIC analyses by Bryant and allusions to them by Hubbard, et al., provide no useful information about any alleged ILEC cost advantage and should be ignored by the Commission. In fact, the large differences between the HAI model's projection of costs and ILEC actual costs suggest the opposite -- that ILECs have a severe cost handicap at any given output level over CLECs, who have the luxury of using today's technology to serve today's market.

17. Hubbard, et al., argue correctly that investors will not support firms whose costs of

production exceed those of their rivals.[8] But the market has indeed supported scores of CLECs as they have expanded their networks in large numbers of local markets around the country. Contrary to the impression created by AT&T's and MCI WorldCom's economists that CLECs face debilitating cost disadvantages, the equity market has supported a very large number of CLECs in the first three years since the passage of the 1996 Act. In Table 1, I list the largest of these facilities-based CLECs, i.e., those which have deployed their own switches, and their market capitalization as of the close of the equity markets on June 4, 1999. Clearly, AT&T, MCI WorldCom, Time Warner, MediaOne, and Cox owe much of their large market capitalization to activities outside local telecommunications. Yet most of them (excluding MCI WorldCom) have appreciated substantially in value in recent months because of a new perception about the value of cable-television assets in providing local telecommunications services. Clearly, investors do not view these struggling CLECs as mortally handicapped due to cost disadvantages vis a vis the ILECs. Nor is there a dearth of new, smaller CLECs -- if market capitalization of $400 million to $3.9 billion may be termed "small." These CLECs are expanding rapidly and installing facilities even while the UNE unbundling issue is unresolved.

18. AT&T, MCI WorldCom, and ALTS argue for uniform national unbundling requirements.[9] To allow variations in unbundling requirements in response to differences in economic conditions across geographical areas would create "uncertainty" and "time-consuming,

[8] Hubbard, et al., at 18.

[9] These arguments are supported summarily by Hubbard, et al., at 41 and Kwoka at 37-38.

costly procedures," according to them. Not only can they find no "limiting standard" to delimit the types of facilities that must be unbundled under the Act, but they would allow no geographical exceptions to this ubiquity. For example, they would require an ILEC to unbundle a switch or other facility in midtown Manhattan or in downtown Boston even as CLECs use three or four other CLECs' facilities in each area as their communications path for inquiring about the unbundled element from the ILEC. It is difficult to conclude that a fourth or fifth source of this service is necessary in dense urban markets or that a CLEC with $2 billion or $3 billion in market capitalization could not construct its own facility to avoid impairment.

Criteria for Determining the Necessary Scope of Unbundling

19. In determining the scope of unbundling requirements, the Commission should be guided by the experience of three years of market entry since the 1996 Act. Despite Hubbard, et al.'s assertion that "no such competition has developed in the ensuing three years" after the sources of competitive impairment throughout the country.[10] Enormous capital expenditures are being made by non-ILEC firms on facilities that substitute for ILEC functionality, and the Commission cannot ignore the message conveyed by these investments. If scores of CLECs can The 724 switches purchased by CLECs surely reflect a substantial investment in entry into the nation's local telecommunications markets.[11] The $15 billion in annual capital expenditures by

[10] See my Declaration appended to Bell Atlantic's comments in this proceeding.

[11] See para. 15, above.

Table 1

Market Capitalization of A Few Facilities-Based CLECs

CLEC	Market Capitalization (Billion $)
AT&T	169.8
MCI WorldCom	167.0
Time Warner	78.4
MediaOne Group	43.4
Cox Communications	20.0
Frontier Corp.	9.2
McLeod USA	3.9
RCN	3.0
Teligent	2.9
WinStar	2.8
NextLink	2.5
Allegiance Communications	2.5
Intermedia	1.3
ICG Communications	1.0
Hyperion	0.9
Electric Lightwave, Inc.	0.6
US LEC	0.5
e.spire	0.5
GST Telecommunications	0.5
MGC Communications	0.4
Westell	0.3

Source: UNE Fact Report, Appendix A; www.quote.yahoo.com.

passage of the Act, there has been substantial competitive entry. The partial list of CLECs shown in Table 1 is an impressive reflection of the degree to which CLECs have attracted equity capital. wireless service providers without access to unbundled elements at TELRIC prices surely informs the Commission on the degree to which switching and local transport are potential make these investments in many areas, these facilities simply cannot be deemed a source of competitive impairment.

20. Nor should the Commission entertain arguments that because any single CLEC claims impairment from an inability to obtain a certain element at TELRIC prices, this element should be subject to mandatory unbundling. The Commission's task is to devise an unbundling regime that is consistent with the development of competition, not the subsidization of competitors. It should not seek to come to the aid of individual competitors, who may be inefficient or lacking in innovative zeal. The UNE Fact Report provides an exhaustive documentation of the degree to which CLECs are investing in transport, switching, advanced services, and even loop equivalents, particularly for business customers in metropolitan areas. Wherever there is evidence that wireless service providers or CLECs are investing extensively in facilities providing the equivalent functionality of an ILEC facility, that facility should not be subject to mandatory unbundling.

21. If a given type of functionality is available from other sources or if CLECs are actively constructing facilities with such functionality, this facility should not be subject to unbundling -- either separately or jointly with another facility. For instance, if local switching is

widely deployed by CLECs and wireless providers in a metropolitan area, switching should not be subject to unbundling separately or in combination with, say, local transport. One cannot contend that competition is impaired by the lack of TELRIC-priced unbundled switching cum transport if switching has been widely deployed. Unbundling should not be mandated to satisfy the unimaginative CLEC that does not wish to trouble itself to find alternative sources of switching, including the purchase of its own switch. Nor can one contend that the entire UNE platform must be available at TELRIC prices if other facilities providing the same functionality as any of the individual elements are otherwise available in a geographic area or could easily be provided by a CLEC through its own investment in facilities. The UNE platform should not be simply a mechanism by which entrants obtain the facilities for an entire service at discounts greater than those provided through the resale provisions of the Act.

22. Any unbundling required by the Commission's rules, beyond that required to provide facilities that are unavailable from other sources or unavailable through self-provision, is likely to create disincentives for facilities-based investment. Kwoka and Hubbard, et al., argue that unbundling could accelerate entry and thereby provide the opportunity for self-provision at a later date. But even they must admit that their universal unbundling proposal will cause entrants to substitute UNEs for their own or others' facilities for the first few years. Whether entrants with an abundance of UNEs will somehow attempt to shake themselves from reliance upon their competitors' (the ILECs') facilities at some later date, even though UNEs are available at favorable TELRIC prices, is surely conjecture at this point. But it is not conjecture to conclude that an over-broad unbundling requirement will reduce incentives to deploy facilities at first and

undermine those CLECs that have already invested heavily in their own facilities.

23. The Commission should also be cognizant of the effect of extensive unbundling requirements on future conflicts between ILECs and CLECs over the ability of the ILECs to manage their own facilities and to modernize them as they see fit. The Commission and state regulators will be enmeshed in continual controversies over the effects of ILEC investment in new, innovative facilities when their CLEC lessees want only old, plain-vanilla functionality. Indeed, CLECs will undoubtedly resort to the regulatory process to attempt to delay their competitors, the ILECs, from investing in new facilities under the pretext that such investments harm the CLEC lessees even when no such harm exists.

24. There are already early signs of possible disputes over the design of ILEC facilities. Comments by ALTS, Rhythms Netconnections, Inc., e.spire Communications, Inc., and Intermedia Communications, Inc., argue for the creation of new UNEs ("data UNEs," for example) that ILECs would have to build or otherwise adapt from their existing networks for the convenience of their competitors. If the Commission accedes to such requests, there will be an unending flow of special requests for custom UNEs that individual CLECs desire -- either to deliver their own services or to impair the ILEC in its attempt to compete with them. The proposal for line sharing, advanced by the Commission in its recent advanced-services NPRM, provides myriad opportunities for such demands since the CLEC would be using the very same loop as the ILEC and would be able to seek regulatory redress for any or all innovative changes in the design of that loop or ancillary facilities on the basis of (or pretext of) harm to its services

as a lessee of part of the loop.

25. Even AT&T tacitly admits that universal availability of UNEs is not necessary in all local markets. The purported basis for AT&T's request for unbundled switching and the UNE Platform is to service the "broad-based, mass market."[12] The "mass market" to which AT&T refers is presumably the residential and small business customers, particularly in less dense areas. Implicit in such a statement is that in situations, particularly in dense, metropolitan areas, such access is unnecessary for competition to develop and thrive. In fact, it would be harmful to competition to require the UNE Platform in these situations.

26. It is also important that the Commission not require the combination of certain elements, such as local loops and transport, because such a requirement will surely reduce incentives for competitors to deploy the elements separately.[13] If transport is available from other sources or is being widely deployed by CLECs, the Commission should not require it to be unbundled -- either separately or in combination with other facilities. In large part, the demand for loop-transport combinations is a reflection of CLECs' desire to use such combinations in competing in the special-access market -- a market that the Commission has already deemed competitive.

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[12] AT&T Comments at 86.

[13] This proposal is advanced by ALTS in its Comments at 62.

27. In addition, the Commission should be wary of novel new demands for unbundling, such as that of loop sharing. To extend unbundling even further to facilitate entry into new, advanced services markets in which the ILEC has no dominant position and may even be behind its cable television and CLEC rivals in offering such services. There is no reason for the Commission to handicap the ILECs with further unbundling requirements to facilitate competition in such a situation. Line sharing unnecessarily creates problems for ILEC network development and discourages investment in new network facilities. If ILECs are required to share their lines with entrants at TELRIC rates, these entrants will have far less incentive to deploy alternative technologies -- such as those using terrestrial wireless or satellite circuits -- thereby reducing the degree of competition in the advanced-services marketplace. Moreover, the line-sharing proposal sharply reduces the incentive for the entrants to offer the entire package of local services, one of the principal goals of the 1996 Telecommunications Act.

28. Finally, given the dizzying pace of technological change and the large investments now being made by CLECs and wireless carriers, the Commission should surely apply a sunset date to all unbundling requirements. The decision to require unbundling of elements or combinations of elements should be revisited frequently to guard against the retention of unbundling requirements that needlessly reduce the incentive for CLECs and ILECs alike to invest in network facilities.